1. Have there been any changes to the guidance since November 20? If so, please forward the updated guidance to us or indicate how we can get it. We are especially interested in changes to the checklist.
   Yes, this is an evolving process and all changes will be periodically posted to the homepage. For further direction, developers are responsible for maintaining dialogue with GCCS Engineering for the most current guidance.

2. In the schedule section, there is a line identifying Y2K Compliant Segment Re-Delivery. It is described as "GCCS 3.2 Y2K". What does the "3.2" refer to? Is it intended to mean Y2K compliant 3.0 segments, Y2K compliant 3.0 Stage II segments, or Y2K compliant segments for the next release (which, presumably, would be 3.2)?
   GCCS 3.2 includes all Y2K compliant Stage II (now called GCCS version 3.1) segments and re-delivery of Y2K compliant versions of GCCS 3.0 segments. All GCCS software will be Y2K compliant with GCCS 3.2 release.

3. After February 5, all segments delivered to the OSF must be Y2K compliant. Is that for all segments or only new segments? Does this mean that if we deliver a fix to a 3.0/Stage II segment in March or April, that we must make the segment Y2K compliant in addition to making the aforementioned fix?".
   Yes, as of 5 February 1998, all segments must be Y2K compliant or they will be rejected. At delivery, the developer must state Y2K compliance, how compliance was determined and submit Y2K test plans. If the segment is to be retired, compliance will be achieved by de-installation.

4. Under "Developer's Responsibilities", there is a statement that non-compliant systems must not "contaminate" compliant systems. With respect to the exchange of date information between systems, a compliant system can only determine whether or not another system is providing valid data or invalid data (i.e. that it is syntactically correct). That determination is based on a set of predefined rules. If the data is valid syntactically, the compliant system cannot know whether the data is accurate. As an example, if a non-compliant system provides "01" to a compliant system, and the rules say that "01" should be 2001, the compliant system has no way to know that the non-compliant system intended 1901. In this example, would the compliant system be considered contaminated? If so, how would the compliant system avoid this situation?
   A compliant system insures that date information passed to it is sane and rejects invalid data. A 1901 date in GCCS would not happen and therefore should be rejected. Consult the FAR definition of compliance. Y2K issues must be resolved on an individual basis. Interfaces with other segments/systems must be resolved with the developer on both sides of the interface. For more information, contact the GCCS Y2K Engineer.

5. Checklist item 1 - Showing all dates in 4 digit year format (CCYY) is the most desirable solution to many of the Y2K problems, however there are some instances where that may not be desirable. One example is the Zulu time format. Some

applications show time in Zulu format (ddhhmmZMMMYY). To change to a 4 digit year would be a functional user interface change. Recommend that this item NOT be required for a segment to be considered Y2K compliant.

Where 4 digit dates can be used, what is a valid range? 0001-9999? 1950-2049? Suggest that the years 1900-2100 be considered valid 4-digit years.
The checklist was intended to be a suggested starting point, not the final, definitive checklist for every system. Consult the FAR definition of compliance. Each developer knows her software and should develop her own checklist. Our sample checklist lists Y2K sensitive dates and other pertinent info for your reference.

6. Checklist item 9 - Not practical for the reason cited earlier. Again, Zulu format is desired in some applications and the users may not be willing to enter the extra 2 digits. Recommend that this item NOT be required for a segment to be considered Y2K compliant.
   See above(question 5 answer).

7. Checklist item 10 - Date calculations - One of the most important issues surrounding Y2K compliance is the consistent use of date calculations. Currently one-digit years are used in transaction formats and 2 digit years are used in files such as reference files and TPFDD files. Assuming that these formats are not going to change in the immediate future, it is imperative that ALL applications utilize the same algorithms for converting these one and two digit year formats. If the same algorithms are not used by all applications, there can be no assurance that all applications are interpreting the one and two digit years consistently.

   Suggest that we adopt a standard windowing algorithm for all applications to use when dates are represented in YY or Y format. Suggest that for dates in YY format, we use a 49 year lookback window. If the specified 2-digit year is more than 49 years prior to the current year, the year is considered to be the next millennium. For example, in 1997, “47” would be considered to be 2047. “52” would be 1952. This “window” would slide with each passing year.

   Similarly for one digit years, if the specified year is more than 4 years prior to the current year, the year is considered to be the next decade. Thus in 1997, “2” would be 2002. “3” would be 1993.
   Contact the GCCS Y2K Engineer ASAP to discuss this. Use of one-digit years constitutes a decade problem. If we standardized to accommodate one-digit years, we’d all have a decade problem. Let’s discuss your proposed solution for this decade. If your data is passed to other segments/systems, an agreement must be reached for sliding windows.

8. Checklist item 22 (the first #22) - Again, it is desirable to interface with all external applications and data stores using 4 digit years, however in the case of reference files and transactions, this is not possible. Adopting standard algorithms helps to solve this

problem. Recommend that this item NOT be required for a segment to be considered Y2K compliant.
Bottom Line: Are you compliant IAW the FAR definition?

9. Checklist item 22 (the second #22) - It is not necessary to require that all indicated dates be checked to ensure Y2K compliance. Some of the dates are relevant for financial or accounting systems, but not relevant for JOPES applications. Also, suggest that it is not necessary to test the date "2000-01-10". This same test will be satisfied with the testing of "2000-02-29".
Again, the checklist is not applicable in every sense to every segment. Your question highlights this, and all developers must develop their own test plans to prove Y2K compliance.

Q&A – as of 09 Dec:

1. What does GCCS 3.2 refer to?

GCCS 3.2 is the Y2K release, which includes stage II segs scheduled for delivery on or after the 5 Feb Y2K compliance deadline and Y2K compliant stage I & II segments re-released.

2. What is the standard date format for GCCS?

Four digit years should be used when possible. However, "if a system is Y2K compliant but does not use a standard date format, conversion to the standard is not required at this time." (DoD Mgmt. Plan)

3. How should DTG messages be governed because CCYY is not the standard format? As long as the message handling software is smart enough to realize that a message with 00 as a year came after a message with 99 in the year, than the system is compliant.
4. Should the user be forced to enter the century portion of the date when the century is known?

No, the user is not required to enter the date as long as the software can determine and correctly calculate the century.

5. Should an application accept dates as is, and if so what format should the date be on the outgoing message?

If part of an application's functionality requires it to accept dates, then that application must accept dates. As a general rule, the dates should be passed between applications using the CCYY century indicator.

6. Currently application stores data in four digits however displays in 2 digits. Will all windows associated with dates need to be changed, and by when?

No, the windows do not need to be changed as long as the dates are stored and manipulated correctly, however, all dates on the screen should allow the user to intuitively know which century he is dealing with.

7. Will there be a compliance level established i.e. Level 1, Level 2 and so forth?

The JITC compliance levels will be used. For more information, see the JITC homepage (insert hot-link here).

8. How will the Y2K delivery process differ from normal deliveries?

On-line registration will be required prior to delivery. The on-line registration will require an identification of all segment interfaces. If segment deliveries are not accompanied by the appropriate documentation (i.e. delivery letter, test plans and procedures, etc.), the delivery will be rejected.